62D CONGRESS
3d Session

SENATE

DOCUMENT
No. 1097

CAREY ACT PROJECTS

REPORT OF

A COMMITTEE APPOINTED BY THE SECRETARY OF THE INTERIOR TO MAKE AN INVESTIGATION INTO AND REPORT UPON THE HISTORY AND PRESENT CONDITION OF THE CAREY ACT PROJECTS

PRESENTED BY MR. SMOOT

FEBRUARY 21, 1913.—Ordered to be printed

WASHINGTON
GOVERNMENT PRINTING OFFICE
1913

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https://archive.org/details/careyactprojects00unit

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WASHINGTON, D. C., *February 15, 1913.*

The SECRETARY OF THE INTERIOR.

SIR: With further reference to your several letters of June 7, directing that representatives of the General Land Office, Reclamation Service, and Geological Survey prepare a report on the practical operation of the Carey Act and the history and present condition of the various projects under it:

A brief preliminary report of the committee detailed for this task, consisting of F. R. Dudley of the General Land Office, F. W. Hanna of the Reclamation Service, and Herman Stabler of the Geological Survey, was submitted on October 4, 1912, and on December 21, 1912, in response to directions of November 11, the committee submitted a report and draft of proposed departmental regulations under the Carey Act. This, which is the third and is intended to be the final report of the committee, is devoted to a discussion of those features on which the report was directed and which have not been covered by the two previous reports of the committee.

THE CAREY ACT.

The purpose of the Carey Act is specifically expressed in the act as being "to aid the public-land States in the reclamation of the desert lands therein, and the settlement, cultivation, and sale of such lands in small tracts to actual settlers." This purpose has not been expressly changed by any amendment of the act, and therefore remains as the basis on which operations under the act should be considered and the criterion on which its success or failure should be adjudged.

The Carey Act as amended provides for:

(*a*) The withdrawal of public lands from settlement and entry for one year pending investigation and survey preliminary to the filing by a beneficiary State of an application for segregation.

(*b*) After proper application by a State and a showing of a plan of irrigation sufficient to thoroughly irrigate and reclaim a body of public land, the making of a contract between the United States and the State for its reclamation by the State.

(*c*) The patenting to the State of land to which an ample supply of water has actually been furnished in a substantial ditch or canal, ordinarily free of cost or price.

Under the provisions of the act as amended, land is "reclaimed" when water is brought within a reasonable distance of it in a substantial ditch or canal, regardless of whether it is actually irrigated, cultivated, and settled. This definition of reclamation should be kept in mind, for land so reclaimed is patented to the State and the United States has no further administrative action in the matter except perhaps the initiation of judicial proceedings for reconveyance of the land if the purpose of the act is not subserved by its ultimate settlement, cultivation, and sale in small tracts to actual settlers.

ADMINISTRATION AND PROCEDURE.

The Carey Act is so drawn that a wide variation of procedure and administrative control is possible. Although the moral responsibility of the United States and the several States can not seriously be questioned, governmental supervision and control of projects is not mandatory and financial responsibility is disclaimed both by the Federal law and the State acts accepting it.

On the passage of the Carey Act, the Federal and State officials were ill prepared to administer it effectively. As a rule, they had no experience qualifying them to supervise irrigation operations and were overburdened with other duties. In consequence, there was general neglect of those provisions of the act not mandatory in character and superficial compliance with those provisions requiring definite action. For example, although the act requires the State to make "proper application" and to "submit a plan of irrigation sufficient to thoroughly irrigate and reclaim the land," the regulations and practice of the Department of the Interior, for the first 15 years after the passage of the act were such that a wholly ephemeral project could have passed to the contract stage and the lands included therein been held for grazing purposes for a period of 10 years. Instances are on record where lands in supposititious projects were patented to States without even the so-called reclamation provided for in the act. It is not believed that such conditions were the result of active fraudulent administration on the part of Government officials but were the natural result of lack of administrative supervision. All essential duties implied by the Carey Act except the formal keeping of the land records were left as fully as possible to the States, with the expectation that they would build up efficient reclamation organizations that would supervise operations under the Carey Act and assure the accomplishment of its purpose.

The State officials on their part, by reason of inexperience, inefficiency, lack of time and money, and in some cases apparently with fraudulent intent, appeared quite willing to accept and approve, without serious consideration or examination, the projects presented to them by private individuals and corporations. No serious attempt was made by the States to do the work of reclamation directly, though one State did build a reservoir under conditions that resulted in a local scandal, and another State started a project that, after financial and engineering embarrassments, is now being completed by private capital. In fact, the State officials quite generally acted as mere agents of promotors or else the promoters themselves were appointed as State officials for the purposes of the act. The promoters on their part had water appropriations to sell. Their primary object was the taking of profits, and the natural tendency was to sell so-called water rights without accomplishing substantial construction of the irrigation system. Several of the projects taken up in the early period have more than once passed through the throes of financial dissolution. Each such failure places an additional burden on the ultimate settler in the case of a feasible project. In the case of bona fide attempts to develop projects, lack of experience on the part of the developing companies has not infrequently resulted in unsafe construction and financial wreck.

As a result of agitation resulting from the intolerable conditions on some of the projects, both Federal and State administration is at present on a much firmer basis than heretofore. Beginning with 1909, administration in the Department of the Interior has been much more comprehensive than formerly. In that year new regulations were issued requiring applicant States to show full data as to the feasibility of projects for which they desired to have lands segregated. Some States cheerfully cooperated in this matter and for their later projects have presented the plan of irrigation in considerable detail. Others have challenged the right of the department to go beyond the mere statement of a State official that the projects were satisfactory and have made Federal investigation of feasibility difficult. In addition to requiring more complete information with applications for segregating, the department has latterly made field investigation of all projects and has carefully considered such essential features as sufficiency and availability of water supply, feasibility of construction, costs and probable returns, and reliability of developing companies. Many projects doomed to ultimate failure have thus been rejected in their early stages before a great amount of money could be wasted on them. Your committee, in submitting a draft of revised regulations, has recommended that the department make still more comprehensive examination of the feasibility of projects requiring a complete showing of plan of irrigation at the time of their inception, and, if permissible under the act, requiring annual reports of progress and early relinquishment of segregated lands found to be nonirrigable.

In the States, also, great progress toward better conditions has been made. In more than one State political campaigns have been waged on the Carey Act issue, and new legislative acts and more efficient administration has resulted. The gradual elimination of the early nonfeasible projects and the gradual development of the most promising ones is now being accomplished. This betterment of conditions extends to nearly all the beneficiary States. The development of competent experienced reclamation corps with power to enforce proper construction methods and of sufficient numerical strength to cover the field of operations in any State may be said, however, to be still in its infancy; and nowhere has actual development by a State become the rule. The general change of conditions has been so recent that its effect can not yet be accurately estimated. It seems likely that for some time to come the principal result will be a narrowing of the field of Carey Act promotions to feasible projects and a very gradual placing of Carey Act operations on a sound financial basis. A more reasonable relation between the area of lands segregated and lands reclaimed is to be expected.

ARIZONA.

The Carey Act was extended to Arizona by the act of Congress approved February 18, 1909 (35 Stat., 638), but was not accepted by the local legislature until 1912. No applications for segregation have been made by the State.

COLORADO.

The State legislature on March 15, 1895, passed an act accepting the provisions of the Carey Act and making provisions for the administration thereof. No applications for segregations under the act were made, however, until in 1903.

There have been applications made to date for 21 separate projects in the State; 3 of these applications have been rejected; 5 have been either relinquished or canceled in toto; 7 are pending and 6 have been approved. Of the pending projects 3 are withdrawn under the act of March 15, 1910.

At the present time there are withdrawn under the act of March 15, 1910, about 362,331 acres and under prior acts about 65,850 acres, and in the approved segregations there are about 125,540 acres, making the total area involved about 553,721 acres.

Following is given a table showing the status of approved Carey Act projects in the State. From this table it will be noted that the first project in the State was started in 1903 and that the major portion of the activity under the act has been during recent years. Out of the 125,540 acres permanently segregated 34,409 have been sold to settlers and only 640 acres have been irrigated under all the projects, amounting to about one-half per cent of the area segregated. The one project that has been completed has an insufficient water supply, and has not had water enough to deliver to the land in it since its completion although its reservoir has been in condition to store water for the last three years. The duty of water for four of the projects is very high and will necessarily result in water shortage whenever there is a smaller run-off than assumed in the designs of the systems.

The poor results obtained in Colorado under the Carey Act are due principally to (*a*) difficulty to obtain responsible promoters; (*b*) insufficiency of funds of the contracting companies; (*c*) insufficient and incompetent engineering advice on water supply; (*d*) the chaotic condition of water rights in the State resulting from a lack of administrative control of water appropriations and adjudications.

Status of approved Carey Act projects in Colorado.

Name of company.	Acres now segregated.	Per cent completed.	Acres disposed of.	Acreage irrigated.	Cost of water right per acre.	Proposed duty of water.	Date of segregation.
Colorado Realty & Security Co.	45,875	33.0	11,000	.....	$45	1 second-foot to 80 acres.	Jan. 19, 1903
Colorado Land & Water Supply Co.	16,278	.....	760	.....	45	.....do.....	Apr. 23, 1906
Two Butte Irrigation & Reservoir Co.	22,009	100.0	22,009	.....	35	0.9 second-foot to 100 acres.	Dec. 31, 1908
Toltee Canal Co.....	14,853	3.5	640	640	40	1½ acre-feet.....	May 27, 1909
Valley Investment Co....	24,404	4.4	.....	.....	60	.....do.....	Dec. 11, 1909
Great Northern Irrigation & Power Co.	2,121	.....	.....	.....	55	.....do.....	Oct. 30, 1909
Total.....	125,540	.....	34,409	640	.....	.....	.....

IDAHO.

Under the act of August 18, 1894, Idaho was granted the right to select 1,000,000 acres of land for reclamation under the provisions of the act and was granted an additional area of 1,000,000 acres by each of the special acts of Congress of May 25, 1908, and May 27, 1908, making a total of 3,000,000 acres.

In 1895 the State passed a law accepting the conditions of the Carey Act and prescribing the procedure for handling Carey Act projects within the State. This law has been amended by subsequent acts as to procedure for the purpose of more adequately meeting the needs of the State.

Idaho has been very active in recent years in Carey Act developments. At the present time there are 19 projects for which segregations have been granted to the State and on which the lands have been opened to public entry; 8 projects for which segregations have been made to the State and on which the lands have not yet been opened to public entry; 16 projects with applications pending before the General Land Office for approval, 6 of which are withdrawn under the act of March 15, 1910; 7 projects for which the applications have been rejected in toto. Applications for three supplemental segregations for three of the projects given among those for which lands have been segregated have been rejected, and two among those for which applications are pending have been rejected.

In Table 1, following, entitled "Physical statistics Carey Act projects in the State of Idaho," is given a complete list of the projects for which segregations have been made and for which applications are pending, together with physical data relating thereto. It will be noted from this table that the total area involved in all the projects is 2,171,483 acres.

From Table 2 following, entitled "Status of Carey Act projects that have been formally segregated to the State of Idaho to November 1, 1912," it will be noted that the total area now segregated in the State of Idaho is 1,221,107 acres, out of which 734,881 have been entered, 453,901 have been proved up on, 216,993 have been patented to the State, and 193,892 have been patented to entrymen. From this table it will also be seen that the first segregation under the act was in 1899, and this only for 6,093 acres, and that only four segregations were made prior to the passage of the reclamation act, which gave a stimulus to this character of irrigation development in the State. The majority of the segregations are comparatively recent, having been made subsequent to 1906. Only about 16 per cent of the land segregated under the act in the State have been patented to entrymen and only about 18 per cent to the State.

In Table 3, entitled "Cost statistics for all Carey Act projects in the State of Idaho," are given all the projects for which lands have been segregated and for which applications for segregations of lands have been made, with the acreages in the projects, per cents of these acreages irrigated, acreages sold, and cost data. It has been impossible to get the total area irrigated under the Carey Act projects, but the projects for which percentages are given cover nearly all the areas irrigated. These percentages, converted into acreages, give approximately 324,000 acres, which is about 15 per cent of the total areas in all the projects approved and pending and about 27 per cent

of the areas of the projects approved. This represents the accomplishments under the act in the leading Carey Act State during its 19 years of existence. The estimated costs of all projects is approximately $66,790,000, of which approximately $22,846,000 have been expended. The column showing the per cents of the estimated cost expended to date, in connection with that showing the per cents of construction completed, are of interest. The costs have run high compared with the estimates in many cases, being as much as 264 per cent in one case. Attention is also called to the uniformly high costs of water rights per acre.

No data are at hand as to the duty of water proposed for use by the different Carey Act projects of the State. While it is probable that many of the projects have ample water, it is definitely known that some of them have wholly inadequate supplies. The question of water supply was one not carefully looked into until recently, and the insufficiency of water has hindered, and will no doubt greatly hinder, the success of some of the projects.

In general, it may be stated that Carey Act developments in Idaho have been obstructed by (*a*) difficulty in interesting responsible capital; (*b*) insufficiency of funds by construction companies; (*c*) poor engineering advice on costs and water supply; (*d*) purchase of lands at openings of projects by speculators.

TABLE 1.—*Physical statistics Carey Act projects in the State of Idaho.*

No.	Name of project.	Location, county.	Acreage in project.	Source of water supply.	Type of system.	Estimated length of canals.		Remarks.
						Main.	Lateral.	
1	American Falls Canal & Power Co.	Bingham and Blaine	57,242	Snake River	Gravity	87	55	
2	Big Lost River Irrigation Co.	Blaine, Bingham, and Fremont.	78,242	Big Lost River	do	95	100	Storage.
3	Bireh Creek Irrigation Co	Fremont	20,000	Bireh Creek, Eighteen-Mile Creek and tributaries.	do	13	30	
4	Blackfoot North Side Irrigation Co.	Bingham	22,280	Snake River	do	50	25	
5	Black Canyon irrigation district.	Canyon	98,492	Payette River	do	43	195	
6	Blaine County Irrigation Co	Blaine and Fremont	14,720	Little Lost River and tributaries.	do	15	45	Do.
7	Boise City Carey Act project	Ada	151,000	Salmon River and tributaries; south fork Payette and Boise Rivers.	Gravity and pumping	80	150	
8	Bruneau Irrigation Co	Owyhee	40,000	Bruneau River	do	36	32	Do.
9	Emmett irrigation district	Canyon	5,800	Payette River	Gravity	33	50	
10	Grandview Extension Irrigation Co.	Owyhee	1,000	Bruneau and Snake Rivers	Pumping	15	4½	
11	Grasmere Irrigation Co	do	47,500	Marys Creek, Crab Creek, and Bull Creek.	Gravity	56	55	
12	Hansen, C. V., project	Custer and Blaine	3,456	Cedar Creek	do	14		
13	Hegsted, Victor, project	Fremont	3,410	Horseshoe Creek and tributaries.	do	10	10	
14	High Line Pumping Co. (Ltd.).	Twin Falls	3,860	Twin Falls Canal Co., High Line Canal.	Pumping	8	6	
15	Houston Ditch Co	Custer and Blaine	1,884	Big Lost River	Gravity	13	6	
16	Idagon Irrigation Co	Owyhee	9,000	Succor, Jump, and Cow Creeks.	do	40	40	Do.
17	Idaho Irrigation Co	Lincoln	130,000	Big Wood and Little Wood Rivers.	do	100	300	Do.
18	Keating Carey Land Co	Lemhi	15,597	Timber Creek, west fork Timber Creek and Eight-Mile Creek.	do	13	27	
19	Kings Hill Extension Irrigation Co.	Elmore	9,655	Molad River, Bennett, Cold Springs, Alkali, and Little Canyon Creeks.	do			Do.
20	Kings Hill Irrigation & Power Co.	Lincoln, Twin Falls, and Owyhee.	13,359	Molad River	do	27	20	
21	Lemhi Irrigation Co	Lemhi	3,500	Lemhi River	do	25	30	
22	Little Lost River Land & Irrigation Co.	Custer and Blaine	20,000	Wet Creek and tributaries	do			Do.

TABLE 1.—*Physical statistics Carey Act projects in the State of Idaho*—Continued.

No.	Name of project.	Location, county.	Acreage in project.	Source of water supply.	Type of system.	Estimated length of canals.		Remarks.
						Main.	Lateral.	
23	Marysville Canal & Improvement Co.	Fremont	6,134	Fall River	Oravity	8½	31	
24	Owsley Carey Land & Irrigation Co.	do	8,600	Camas Creek and Mud Lake	Pumping	2½	11	
25	Owyhee Land & Irrigation Co.	Owyhee	29,535	Castle, Boulder, Spring, and Meadow Creeks.	Gravity	40	100	Storage.
26	Owyhee Irrigation Co	do	3,296	Carey Creek	do	6½	4	Do.
27	Pahsimeroi project	Custer	6,000	Big and Goldburg Creeks; Pahsimeroi River.	do	4	20	Do.
28	Portneuf-Marsh Valley Irrigation Co.	Bannock	11,914	Portneuf River	do	25	20	Do.
29	Pratt Irrigation Co	Oneida	4,674	Natural Springs	do	4	8	Do.
30	Raft River Reclamation Co	Cassia	50,000	Raft River and Cassia Creek	do	25	100	
31	Snake River Irrigation Co	Ada	6,560	Snake River	Gravity and pumping	25	20	
32	Thousand Springs Land & Irrigation Co.	Custer	6,300	Lost River	Gravity	6	10	Do.
33	Twin Falls Land & Water Co.	Twin Falls	244,000	Snake River	do	112	590	
34	do	Owyhee	580,000	do	do	140	.....	
35	do	Twin Falls	35,000	do	Pumping	.....	.....	Do.
36	Twin Falls North Side Land & Water Co.	Lincoln and Elmore	207,144	Snake River and Big and Little Wood Rivers.	Gravity and pumping	100	625	Do.
37	do	Cassia and Twin Falls	3,681	Snake River	Pumping	22	19	
38	Twin Falls Oakley Land & Water Co.	Cassia	45,000	Goose, Trapper, Birch, Basin, and Cottonwood Creeks.	Gravity	30	90	Do.
39	Twin Falls Salmon River Land & Water Co.	Twin Falls	127,707	Salmon River	Gravity, small area, pumping.	11	235	Do.
40	West End Twin Falls Irrigation Co.	Twin Falls and Owyhee	46,000	Cedar Creek, Devel, Deadwood, Three Creek, and East Fork of Bruneau River.	Gravity	15½	184	Do.

TABLE 2.—*Status of Carey Act projects that have been formerly segregated to the State of Idaho to Nov. 1, 1912.*

Name of company.	Address.	Acreage now in segregation.	Acreage not yet reclaimed.	Acreage open to entry.	Acreage entered.	Acreage proved up.	Acreage patented.		Date of segregation.
							To State.	To entrymen.	
American Falls Canal & Power Co	Aberdeen, Idaho	57,242	None.	9,870	47,372	36,730	50,498	37,419	1902
Big Lost River Land & Irrigation Co	Boise, Idaho	92,189	None.	31,444	60,745	None.	None.	None.	1907
Blaine County Irrigation Co	Arco, Idaho	14,394	None.	2,037	12,357	2,480	None.	None.	1910
Brunoau Irrigation Co	Boise, Idaho	78,447	78,447	None.	None.	None.	None.	None.	1908
Emmett irrigation district	Emmett, Idaho	5,829	None.	None.	5,829	5,709	5,789	5,709	1902
Honston Ditch Co. (Ltd.)	Darlington, Idaho	1,884	None.	324	1,560	340	None.	None.	1908
Idagon Irrigation Co. (Ltd.)	Boise, Idaho	8,665	8,665	None.	None.	None.	None.	None.	
Idaho Irrigation Co. (Ltd.)	Richfield, Idaho	143,348	None.	52,712	90,636	60,276	None.	None.	1906
Keating Carey Land Co	Butte, Mont	15,237	15,237	None.	None.	None.	None.	None.	1911
Kings Hill Extension Irrigation Co	Boise, Idaho	9,252	None.	1,072	8,179	1,320	None.	None.	1909
Kings Hill Irrigation & Power Co	do	13,597	None.	2,182	11,414	9,509	None.	None.	1904
Marysville Canal & Improvement Co. (Ltd.)	do	6,093	None.	442	5,650	2,236	None.	None.	1899
Owsley Carey Land & Irrigation Co	Butte, Mont	7,401	7,401	None.	None.	None.	None.	None.	1910
Owyhee Irrigation Co. (Ltd.)	Seattle, Wash	3,296	None.	2,216	1,080	320	None.	None.	1908
Owyhee Land & Irrigation Co. (Ltd.)	Boise, Idaho	29,043	29,043	None.	None.	None.	None.	None.	1909
Porineuf-Marsh Valley Irrigation Co	Downey, Idaho	11,754	None.	1,197	10,557	652	None.	None.	1908
Pratt Irrigation Co. (Ltd.)	Salt Lake, Utah	4,674	None.	658	4,016	1,275	None.	None.	1908
Snake River Irrigatiou Co. (Ltd.)	Boise, Idaho	5,701	None.	4,555	1,145	None.	None.	None.	.....
Thousand Springs Land & Irrigation Co	Idaho Falls, Idaho	6,372	6,372	None.	None.	None.	None.	None.	.....
Twin Falls Land & Water Co. (pumping)	Twin Falls, Idaho	18,208	18,208	None.	None.	None.	None.	None.	.....
Twin Falls Land & Water Co	do	206,863	None.	14,753	188,031	179,790	160,706	150,764	1901
High Line Pumping Co. (Ltd.) (serving land in Twin Falls Land & Water Co.'s segregation).	do	.....	None.	1,328	2,750	2,671	None.	None.	1901
Twin Falls North Side Land & Water Co	Milner, Idaho	250,467	20,965	72,279	157,223	127,502	None.	None.	1907–1911
Twin Falls Oakley Land & Water Co	do	43,574	8,181	6,303	29,089	None.	None.	None.	1908
Twin Falls Raft River Irrigation Co	do	49,992	49,992	None.	None.	None.	None.	None.	.....
Twin Falls Salmon River Land & Water Co	do	91,569	11,524	7,266	72,778	23,091	None.	None.	1908
West End Twin Falls Irrigation Co	Des Moines, Iowa	46,016	None.	21,549	24,470	None.	None.	None.	1908
Total		1,221,107	254,035	232,187	734,881	453,901	216,993	193,892	.....

TABLE 3.—*Cost statistics for all Carey Act projects in the State of Idaho.*

No.	Name of project.	Acreage in project.	Per cent of acreage in project irrigated.	Acreage sold.	Total cost of project estimated.	Amount expended to date.	Per cent of estimated cost expended to date.	Per cent construction completed.	Cost per acre.
1	American Falls Canal & Power Co.	57,242	35.0	47,351	$350,000.00	$925,027.00	264.0	100	$40.00
2	Big Lost River Irrigation Co.	78,242	.6	60,524	3,500,000.00	1,600,000.00	45.7	.....	40.00
3	Birch Creek Irrigation Co.	20,000	.....	4,096	450,000.00	30,000.00	6.7	.....	50.00
4	Blackfoot North Side Irrigation Co.	22,280	.....	.....	800,000.00	5,000.00	.6	.....	.....
5	Black Canyon irrigation district	98,492	.....	.....	7,134,638.00	32,114.00	.5	.....	72.50
6	Blaine County Irrigation Co.	14,720	33.0	10,760	300,000.00	246,000.00	82.0	(1)	40.00
7	Boise City Carey Act project	151,000	.....	.....	9,000,000.00	15,200.00	.2	.....	.....
8	Bruneau Irrigation Co.	40,000	.....	.....	1,350,000.00	30,030.00	2.2	.....	60.00
9	Emmett irrigation district	5,800	.....	5,800	350,000.00	900,000.00	257.0	(2)	50.00
10	Grandview Extension Irrigation Co.	1,000	.....	.....	150,000.00	45,000.00	30.0	.....	65.00
11	Grasmere Irrigation Co.	47,500	.....	.....	1,250,000.00	12,000.00	.9	.....	65.00
12	Hansen, C. V., project	3,456	.....	.....	60,000.00	35,000.00	58.3	.....	40.00
13	Hegsted, Victor, project	3,410	.....	.....	100,000.00	.....	.....	.....	40.00
14	High Line Pumping Co. (Ltd.)	3,860	31.0	3,041	110,000.00	110,000.00	100.0	100	45.00
15	Houston Ditch Co. (Ltd.)	1,884	.....	1,500	50,000.00	35,000.00	70.0	100	35.00
16	Idagon Irrigation Co. (Ltd.)	9,000	.....	.....	590,000.00	75,000.00	11.9	.....	60.00
17	Idaho Irrigation Co. (Ltd.)	130,000	17.0	90,000	4,000,000.00	3,750,000.00	93.8	(1)	50.00
18	Keating Carey Land Co.	15,597	.....	.....	250,000.00	65,000.00	26.0	.....	30.00
19	Kings Hill Extension Irrigation Co.	9,655	20.0	8,139	650,000.00	502,213.00	77.3	.....	65.00
20	Kings Hill Irrigation & Power Co.	13,359	25.0	9,969	600,000.00	1,101,963.00	184.0	100	65.00
21	Lemhi Irrigation Co.	3,500	.....	.....	200,000.00	2,500.00	1.2	.....	50.00
22	Little Lost River Land & Irrigation Co.	20,000	.....	.....	300,000.00	10,000.00	3.3	.....	30.00
23	Marysville Canal & Improvement Co. (Ltd.)	6,134	.....	5,689	190,000.00	250,000.00	132.0	100	20.00
24	Owsley Carey Land & Irrigation Co.	8,600	.....	.....	150,000.00	8,199.00	5.5	.....	35.00
25	Owyhee Land & Irrigation Co. (Ltd.)	29,535	.....	.....	1,000,000.00	10,000.00	1.0	.....	55.00
26	Owyhee Irrigation Co. (Ltd.)	3,296	.....	1,080	80,000.00	70,000.00	87.5	80	45.00
27	Pahsimeroi project	6,000	.....	.....	50,000.00	1,000.00	2.0	.....	30.00
28	Portneuf-Marsh Valley Irrigation Co.	11,914	17.0	10,594	275,000.00	433,311.00	158.0	(1)	35.00
29	Pratt Irrigation Co. (Ltd.)	4,674	.....	3,430	100,000.00	125,000.00	125.0	100	40.00
30	Raft River Reclamation Co.	50,000	.....	.....	1,500,000.00	264,325.00	17.6	.....	.....
31	Snake River Irrigation Co. (Ltd.)	6,500	6.0	1,200	300,000.00	225,000.00	75.0	(1)	50.00
32	Thousand Springs Land & Irrigation Co.	6,300	.....	.....	50,000.00	15,000.00	30.0	.....	30.00
33	Twin Falls Land & Water Co.	244,000	70.0	197,000	1,500,000.00	3,514,906.00	234.0	100	25.00
34	.....do.....	580,000	.....	.....	20,000,000.00	200,000.00	1.0	.....	.....
35	.....do.....	35,000	.....	.....	600,000.00	.....	.....	.....	.....
36	Twin Falls North Side Land & Water Co.	207,144	20.0	149,010	4,500,000.00	4,500,000.00	100.0	(1)	45.00
37	.....do.....	3,681	.....	.....	.....	2,000.00	.....	.....	.....
38	Twin Falls Oakley Land & Water Co.	45,000	15.0	28,853	1,750,000.00	1,000,000.00	57.1	95	65.00
39	Twin Falls Salmon River Land & Water Co.	127,707	15.0	67,439	2,500,000.00	2,500,000.00	100.0	100	40.00
40	West End Twin Falls Irrigation Co.	46,000	.....	21,000	700,000.00	200,000.00	28.6	31	50.00
	Total	2,171,483	.....	726,477	66,789,638.00	22,845,758.00	.....	.....	.....

[1] Practically complete.

[2] Remodeling.

MONTANA.

The early history of the Carey Act in Montana has been marked by disaster, brought on partially through inexperience and lack of precedent in the administration of the act, partially through incompetence and lack of sufficient State appropriations for the proper administration of the act, and partially through what the State legislative investigating committee and governor of the State characterized as positive fraud. This state of affairs culminated in the case of Montana Lists 5 and 6, upon which was predicated Montana List for Patent No. 1.

Under this latter list some 10,000 acres were patented to the State. This patent was issued to the State solely upon the affidavits and certificates of State officials, the present system of investigation by Government inspectors not then being in vogue. Some three years ago, the matter having been brought to the attention of the department, an investigation was ordered, and upon receipt of reports the State of Montana was called upon to reconvey the lands. To the credit of the State officials it may be said that the Government was met halfway in its demand for justice, and the lands were reconveyed to the United States. In addition to this, the segregation lists 5 and 6, aggregating 36,536.42 acres, have been relinquished by the State.

Since that time there has been a thorough reconstruction of the Carey land act board, which at the present time seems to have the situation well in hand, and has within the past two years relinquished to the United States the lands in a number of projects which the board has satisfied itself were not feasible. Among these are the Red Rock project (list 11) of 7,885.52 acres, the Franklin project (list 15) of 5,142.30 acres, besides the Dearborn project (lists 5 and 6) hereinbefore referred to.

Of the approved lists not disposed of by relinquishment all are nearing completion and appear to be in a fair way for ultimate success. They are the Billings project, consisting of lists 1 and 7; the Big Timber project, consisting of lists 2, 3, 9, and 11; and the Valier project, consisting of lists 8, 12, and 14. Of these the Billings project is perhaps the nearest to completion and has met with fewer hard knocks. The Big Timber project, first undertaken directly by the State, has been in financial and engineering difficulties a number of times, but is at last, after strenuous efforts on the part of its present financiers, nearing completion. The Valier project has had much the same experiences by way of financial difficulties, reorganizations, and revisions of engineering plans, but is now firmly on its feet, with what seems to be one of the most carefully surveyed and designed systems in the country. The other Montana Carey Act lists are all pending approval.

The State engineer's report for the past year states that the receipts by the Carey Act land board from November 30, 1910, to November 30, 1911, were $1,534.19; and from November 30, 1911, to November 30, 1912, were $5,252.34. It will be noted that during the past year the State received four times as much money from Carey Act lands as during the preceding year. On the Billings project the assessable value of property increased from $35,000 in 1903 to $700,000 in 1912. On the Valier project the assessment rolls have increased in the past

three years about $3,000,000. On the Billings project there are 1,000 persons, six public schools costing $25,000, over 40 miles of graded roads, rural mail and telephone services, 150 farms, 7,000 acres of alfalfa, and a large nursery. On the Big Timber project there are four public schools and 20 miles of graded road.

General conditions of the present projects in Montana.

Name of project.	Irrigable acreage.	Segregated area.	Segregated lands entered.	Duty of water.	Cost per acre of water.	Estimated cost of project.	Expenditures to date.	Patented to State.	Patented by State.
Billings (lists 1, 7).	27,000	10,200	6,690	1 cubic foot per 100 acres.	$25–$48	$450,000	$417,890	8,192	5,982
Big Timber (lists 2, 9, 11, north side; list 3, south side [1]).	30,751	20,087	4,254	1½ acre-feet per acre.	60	740,000	640,000	[2] 7,356	2,139
Valier (lists 8, 12, 14).	115,100	76,814	22,280	.....do.....	40	4,304,596	3,193,596	.....	.....

[1] Of the south side (Big Timber) project, only 1,320 acres have been reclaimed. It is improbable that the remainder of this project (9,793.73 acres) will be reclaimed on account of the high cost of such reclamation.
[2] List 2.

NEVADA.

The Carey Act was accepted by Nevada by legislative act of March 6, 1901, providing that the State act as agent for any citizen desiring to obtain lands for reclamation and settlement. Several selections were made by the State from 1901 to 1903, mostly for small areas in the interests of an individual or a small group of individuals. All selections made prior to October 21, 1909, were rejected by the department as not conforming to the intent and provisions of the Carey Act.

On March 23, 1909, the State passed a law prescribing certain duties of the State land register and State engineer with respect to Carey Act projects. This act required a report from the State engineer as to feasibility and adequacy of works, public benefit from proposed diversion of water, sufficiency of water supply, reasonableness of cost, and character of lands. Provision was made for field examination by the State engineer in case office studies could not furnish suitable basis for report. Under the provisions of this law a number of selections were made and a few segregations approved. No project has so far attained a high degree of success, but the reclamation of about 10,000 acres in one project is in hopeful progress and the ultimate success of some of the later projects may reasonably be expected.

An interesting feature of the operations in Nevada is the attempt in several cases to develop underground water for irrigation purposes under the Carey Act. None of these has so far proved successful; some are doomed to failure, but others may yet proceed with excellent results, the present stage of operations being too early to warrant a forecast of the final result.

On March 17, 1911, the State passed an excellent law accepting the Carey Act and its amendments and making provision for very satisfactory administration by the State under terms that appear

to afford ample protection to the prospective settler without placing an unreasonable burden upon the bona fide developer.

Practically no irrigation of lands has been accomplished so far in Nevada under the Carey Act. The reasons for this appear to be as follows:

1. An apparent misunderstanding of the scope of the act and the lack, until very recently, of an adequate State law governing Carey Act operations.
2. Insufficient water supply in some projects undertaken on the basis of an unproved supply.
3. Speculative promotion of projects.
4. Inability to finance projects in some cases.

Present Federal and State laws, effectively administered, are sufficient to eliminate all but the last two of these causes of failure.

The previous lack of results attending Carey Act operations in Nevada has apparently been accompanied neither by the unnecessary withholding from entry of large areas of public land nor by extensive hardship and loss to prospective bona fide settlers.

The following is a summary of Carey Act operations in Nevada to June 30, 1912:

	Acres.
1. Lands applied for	163,789.05
2. Lands segregated	36,808.59
3. Lands rejected or relinquished	47,229.35
4. Lands patented to the State as being technically reclaimed	None.

NEW MEXICO.

The act of Congress approved February 18, 1909 (35 Stat., 638), extended the Carey Act to New Mexico, and on March 18, 1909, the Territorial legislature passed a law accepting the act and providing for its local administration. Three projects have since been initiated. One of these has been abandoned, another is being held by the State for financing by a responsible company and further investigations as to feasibility, and the third, on which no construction has been done and which involves a reservoir of doubtful feasibility, may or may not be developed.

The following is a summary of Carey Act selections in New Mexico to June 30, 1912:

	Acres.
1. Land applied for	10,164.68
2. Lands segregated	7,564.68
3. Lands rejected or relinquished	2,600.00
4. Lands patented to the State as being technically reclaimed	None.

OREGON.

By legislative act of February 28, 1901, the State of Oregon accepted the provisions of the Carey Act and placed the responsibility of supervising the reclamation work in a State land board. This board had limited authority, inadequate funds, and no experience in the conduct of irrigation projects. Between 1901 and 1905 about 20 projects were initiated and 2 of these have been completed, one involving 1,280 acres and the other involving 240 acres of land.

The State board had the services of no engineer and made no serious attempt to investigate the projects presented to it. As a result, very unsatisfactory conditions arose in most of the projects. After the appointment of a State engineer in 1905 an effort was made to better the conditions in existing projects, and from that time until 1909 no new projects were undertaken. In February, 1909, a new State law was passed creating a desert-land board to have charge of Carey Act projects and accepting anew the provisions of the Carey Act. This law has many commendable features, and projects taken up since its passage have been presented on a much more satisfactory basis and in general have good prospects of ultimate success.

The history of the early projects in Oregon involves financial difficulties, irresponsibile promotion, lack of sufficient water supply, inherent nonfeasibility, land speculation, bankrupting of bona fide settlers, and the like. One unusual feature of an Oregon project being promoted under a recent contract that prohibits the making of agreements for purchase of water rights until after the date of reclamation is the advance sale by the promoting company of "land certificates," "options," and "assignments of lien." Suit to prohibit such sales is in progress, and right of way has been refused by the department pending adjustment of the matter between the company and the State. No information as to the extent of such sales is at hand. The case is mentioned here as an illustration of the difficulties that beset administrative officers in dealing with resourceful promoters.

The State officials freely admit that operations in Oregon under the Carey Act have not been very successful, and there seems to be at present a strong tendency to discourage further development under its provisions. The secretary of the State desert-land board, who is also the State engineer, in a letter to your committee dated January 4, 1913, expressed the opinion that the Carey Act could not be of much further benefit to Oregon, and that future irrigation development in that State must be through private enterprise or cooperation with the Reclamation Service.

In spite of the general record of disaster attending the early Carey Act projects in Oregon, several thousand acres have been brought under cultivation by its means. The record, in brief, for the State to June 30, 1912, is as follows:

	Acres.
1. Lands applied for	736,163.60
2. Lands segregated	338,617.19
3. Lands rejected or relinquished	229,647.12
4. Lands patented to the State as being technically reclaimed	51,583.13
5. Patented lands reconveyed to the United States because not technically reclaimed	6,014.49
6. Lands patented by State to settlers after actual settlement and cultivation	28,003.19

It thus appears that nearly 4 per cent of the lands applied for by the State, or more than 8 per cent of the lands segregated, have actually been settled upon and cultivated.

The following table gives a brief summary of the projects in Oregon for which development contracts have been entered into by the State desert-land board:

Name of contractor.	List No.	Segregated lands (acres).			Charges per irrigable acre.	
		Total area.	Patented to State.	Patented to settlers.	Water right.	Annual operation and maintenance.
Brownell Desert Reclamation Association (gravity system from Umatilla River completed)	3	240.00	240.00	240.00	.....	.....
Deschutes Reclamation & Irrigation Co. (gravity system from Deschutes River completed)	4	1,280.00	1,280.00	1,120.00	$40	$0.50
Central Oregon Irrigation Co. (gravity system from Deschutes River. Part completed and remainder under construction)	6–19	139,204.63	38,403.65	24,568.27	40	.80
Central Oregon Irrigation Co. (gravity system from Deschutes River and storage. Only preliminary work done)	20	74,198.02	None.	None.	60	.80
Deschutes Land Co. (gravity system from Deschutes River and storage. Only preliminary work done)	11	31,082.21	None.	None.	36	.50
Desert Land Board (attempt now being made to organize on a firm basis. Part completed with deficient water supply)	13	27,004.83	5,680.99	2,074.92	.....	.....
Portland Irrigation Co. (gravity system from Chewaucan River and storage. Only preliminary work done)	15	12,037.54	None.	None.	[1] 46	1.00
Powder Land & Irrigation Co. (gravity system from Powder River and other streams with storage. Only preliminary work done)	28	43,033.54	None.	None.	[1] 100	1.00

[1] Average.

WASHINGTON.

Washington accepted the provisions of the Carey Act by legislative act of March 22, 1895. From 1896 to 1903, seven selecting lists, including a total of 155,649.39 acres of land, were filed, but all were relinquished or rejected. There has therefore been no development of projects in this State.

WYOMING.

Wyoming is undoubtedly the "home" of the Carey Act. Its present governor, Gov. Carey, is responsible not only for the authorship of the bill, but for the passage of the act. Wyoming, to-day, has more "completed" projects, more uncompleted projects, and more pending projects under this act than any other State, although the developments in Idaho under the act are nearly as extensive. Despite all these facts, it is in Wyoming that the opposition to the proper administration of the act has been and is most marked.

It is the opinion of this committee that the present State land board is the most competent and incorruptible that has ever administered the Carey Act in the State, but the fact remains that the friction between the officers of the State and the officers of the United States still exists. This is founded upon the apparently earnest and sincere conviction of the State officials, that inasmuch as the United States, through Congress, has granted to the State the right to select

a certain area of land, provided it is reclaimed by the State, the responsibility of the department ceases with the application for segregation by the State, regardless of whether a feasible project is presented or whether irrigation water is available. The declaration of the State that it can irrigate the land is held to be sufficient. It is claimed that the United States has no right to review the findings of the State engineer and the land board, as to the feasibility of projects, but that failure or success should be left to and assumed by the State. It is held by the State officials that any investigation by the department of a project approved by the State is a direct aspersion either upon the efficiency or the honesty of its officials. While fully recognizing that the chief responsibility for success or failure rests with the States, it is the opinion of your committee that such an attitude is unwarranted.

Furthermore, the history of Carey Act operations in Wyoming, as well as in other States, is not such as to justify the granting of applications for segregation of lands without a review of the proposed method of reclamation, even were such a course proper administration of the act. The interests of the States and the purpose of the Carey Act will best be subserved by hearty cooperation between Federal and State officials. In dealing with the State of Wyoming, and, fortunately this is the only State that takes such a stand, the department has been confronted with this aggressive spirit of dissatisfaction with and hostility to what is believed to be morally obligatory administration. This spirit is in evidence in many of the reports called for as to feasibility of projects, by way of direct utterance, innuendo, or insinuation. It was exemplified by an attack on the departmental administration in the biennial report of the State engineer for 1909–10, and still pervades the State land board in a somewhat modified form, if alleged interviews with the Wyoming commissioner of public lands published from time to time by the western papers may be taken as a criterion.

The Carey Act in Wyoming has, on the whole, been a success, though its early history has not been entirely and unbrokenly successful. Like the other States, it grappled in the beginning with a new proposition, an untried idea, for which neither the local legislators, officials, nor promoters had a precedent. The result was inevitable. Of the early projects, many went wrong—some for lack of water supply, the extent of which at that time was practically unknown in the State; others because of crude engineering details; still others because they were purely speculative enterprises. However, even the failures of a few years ago have been reorganized, some having become successes, others progressing toward success, and some few being doomed to ultimate failure because of deficient water supply. It is believed that the large majority of the Wyoming projects will eventually meet with a reasonable measure of success.

Detailed reports from Wyoming projects have not as yet been received by the committee, though an examination of them in the field has been made. A supplemental statement will therefore be made for this State if the reports when received give material additional information. Meantime the following table, compiled from the report for 1910 of the Wyoming commissioner of public lands is

presented as showing approximately the general conditions of Carey Act projects in this State.

Status of Carey Act projects in Wyoming.

List No.	Project.	Estimated cost.	Authorized price per acre of water right.	Date of segregation.	Area of segregated lands.	Area patented to State.	Area for which State issued location certificates.	Area patented to settlers.	Remarks.
1, 3, 14	Burch Canal, Big Horn Basin Development Co.	$200,000	$50	1896 1904	35,887	14,709	9,729	5,625	Construction completed.
22, 25	Oregon Basin, Big Horn Basin Development Co.	1,500,000	50	1904	204,650	None.	None.	None.	$500,000 spent in construction.
17	Sage Creek, Big Horn Basin Development Co.	4,000	40	1903	784	784	320	160	Construction completed.
5	Scott Ditch	1,000	.....	1897	240	160	160	160	Do.
13	Fitzsimmons Ditch.	1,000	.....	1899	160	160	160	160	Do.
6, 9	Cody Canal	200,000	[1] 50	1896	26,429	19,948	14,268	12,752	Do.
11, 12, 18, 19	Sidon Canal and extensions.	200,000	30	1896 1904	20,559	19,759	18,498	14,190	Do.
20	North Platte Canal & Colonization Co.	70,000	30	1902	14,424	13,224	.....	9,160	Do.
24	Boulder Canal	8,000	[2] 30	1904	6,120	4,200	4,360	1,960	Do.
15	Cody & Salsbury Canal.	.....	.....	1901	77,199	None.	None.	None.	Included in Shoshone project or in list 46.
16	Fisher Ditch	2,500	10	1904	320	320	320	320	Construction completed.
21, 31, 45	Big Horn County Irrigation Co.	410,000	50	1904 1908	20,411	12,068	9,424	2,436	Do.
26	Lovell Irrigation Co.	100,000	25	1904	11,320	None	1,462	None.	Do.
28	Hanover Canal	225,000	50	1904	10,682	8,643	7,764	2,802	Do.
29, 77	Freuch Creek	300,000	.....	1904	18,869	None.	None.	None.	Preliminary work only.
10	Uinta Canal No. 2	.....	.....	1896	19,155	None.	None.	None.	Relinquished.
30	Platte Valley Canal.	600,000	30	1904	18,171	None.	None.	None.	No construction work done.
32, 42, 52	Wheatland Industrial Co	144,000	45	1905 1907 1909	33,115	3,616	320	80	Partly completed. Construction in progress.
33	Sahara Ditch Co.	98,500	50	1905	7,920	None.	None.	None.	Construction completed.
34, 41, 48	La Prele Ditch & Reservoir Co.	300,000	50	1908	18,558	None.	2,628	None.	Construction practically completed.
35, 37	Eden Land & Irrigation Co.	400,000	30	1906 1907	95,658	Noue.	7,908	None.	Do.
36	Medicine Wheel Canal Co.	200,000	30	1907	22,385	None.	None.	None.	No construction work done.
38	North Platte Encampment Canal.	.....	.....	1907	30,387	None.	None.	None.	Do.
39	Hubbard Canal	400,000	40	1908	38,604	None.	None.	None.	Construction in progress.
40, 44	Paint Rock Canal	700,000	50	1907 1908	53,162	Noue.	None.	Noue.	
43	Hammitt Canal	80,000	50	1908	6,295	None.	None.	None.	Construction completed.
46	Elk Canal	30,000	30	1910?	2,724	None.	None.	None.	Do.
47	Reynolds Canal	10,000	30	1908	320	None.	320	None.	Do.
49	Green River Land & Irrigation Co.	1,800,000	35	1908	75,257	None.	None.	Noue.	No construction work done.
50	James Lake Irrigation Co.	300,000	35	1908	14,554	None.	10,889	None.	Construction completed.
51	Tinsleep - Bonanza Canal.	218,750	40	1909	16,486	None.	None.	None.	In litigation.
53	McDonald Canal	245,000	50	1909	15,159	None.	None.	None.	
54	Hawk Springs project.	136,530	50	1909	12,238	None.	None.	None.	
56	Carbon County Land & Irrigation Co.	150,000	30	1909	7,793	None.	None.	None.	Construction begun.

[1] Mostly sold at $15 or $16.

[2] Mostly sold at $12.50 and $15.

Status of Carey Act projects in Wyoming—Continued.

List No.	Project.	Estimated cost.	Authorized price per acre of water right.	Date of segregation.	Area of segregated lands.	Area patented to State.	Area for which State issued location certificates.	Area patented to settlers.	Remarks.
57	Uinta County Irrigation Co.	$120,000	$35	1909	26,080	None.	None.	None.	Construction in progress.
58	East Fork Irrigation Co.	15,000	30	1910	4,901	None.	None.	None.	Do.
61	Wyoming Land & Irrigation Co.	12,000	50	1911	4,526	None.	None.	None.	
68	North Laramie Canal Co.	22,000	50	1909	4,133	None.	None.	None.	Practically completed.
71	Rock Creek Irrigation Co.	563,400	45	1911	11,696	None.	None.	None.	Construction in progress.
	Total	9,696,680			997,331	97,611	88,530	50,005	

NOTE.—The information in this table is principally of date of Dec. 10, 1910, but all segregation lists approved prior to June 1, 1911, have been included. The extent of progress since the date of the table is indicated by the fact that on June 30, 1912, 999,084 acres of land had been segregated and 100,768 acres patented to the State of Wyoming.

EXTENT OF OPERATIONS AND RECLAMATION RESULTS.

The extent of Carey Act operations in the various States, and the technical reclamation of lands as evidenced by the granting of patents, is shown by the following tables, taken from the report of the Commissioner of the General Land Office for 1912:

Withdrawals under the act of Mar. 15, 1910, from the passage of the act to June 30, 1912.

State.	Amount applied for.	Rejected or eliminated before withdrawal.	Withdrawn.	Restored.
	Acres.	*Acres.*	*Acres.*	*Acres.*
Colorado	911,190.96	46,648.49	311,475.90	232,399.13
Idaho	342,453.84	34,206.80	292,526.09	203,874.21
Montana	110,027.61	37,063.83	32,976.29	32,976.29
Nevada	1,021,205.78	304,854.52	271,149.84	270,987.74
New Mexico	383,951.62	56.36	10,000.00	10,000.00
Oregon	595,316.37	203,485.90	205,060.33	156,533.72
Utah	242,653.23	36.88	188,676.77	167,611.03
Wyoming	230,595.95	16,694.24	73,820.42	591.17
Total	3,837,395.36	643,047.02	1,385,685.64	1,092,973.29

State desert-land segregation under section 4 of the act of Aug. 18, 1894 (28 Stat., 372–422), and the acts amendatory thereof, commonly known as the Carey Act, with the action taken thereon from the passage of the act to June 30, 1912.

State.	Applied for.	Segregated.	Rejected or relinquished.	Patented.	Reconveyed.	Time to reclaim extended.
	Acres.	*Acres.*	*Acres.*	*Acres.*	*Acres.*	*Acres.*
Colorado	373,593.56	272,197.98	46,221.77			
Idaho	3,106,994.17	1,299,541.63	877,609.93	295,995.68		51,178.46
Montana	554,432.63	200,597.06	373,206.74	25,653.03	10,104.03	62,604.95
Nevada	163,789.05	36,808.59	47,229.35			
New Mexico	10,164.68	7,564.68	2,600.00			
Oregon	736,163.60	338,617.19	229,647.12	51,583.13	6,014.49	
Utah	435,170.02	136,820.63	267,980.83			
Washington	155,649.39		155,649.39			
Wyoming	1,765,079.48	999,083.61	300,400.66	100,767.67	3,977.23	17,397.53
Total	7,301,036.58	3,291,231.37	2,300,545.79	473,999.51	20,095.75	131,180.94

The withdrawal act, as would be expected, greatly stimulated investigation of projects. The withdrawals being limited to a year, speculative exploitation is discouraged and bona fide investigation is properly protected and encouraged. The greater part of the area withdrawn passes back to the public domain, but a considerable area is ultimately included in applications for segregation. In the opinion of your committee operations under this act have been attended by no serious abuses and have been generally beneficial in their results.

The second table shows the Carey Act has been productive of irrigation progress in that nearly 474,000 acres of land have had water supplies made available to them. Of this area over 62 per cent is in Idaho, over 22 per cent in Wyoming, nearly 11 per cent in Oregon, and the remainder, a little over 5 per cent, in Montana. In the other States practically no reclamation has so far resulted. In addition to the reclaimed lands for which patent has issued there are over 200,000 acres of lands included in pending applications for patent. No information is available to show what proportion of the land technically reclaimed has actually been irrigated. If, however, it be assumed that at the date of the report from which the above table was taken water was available for 680,000 acres of Carey Act lands, and that 50 per cent of these were actually irrigated, it would follow that the total area irrigated under the Carey Act in 1912 was about 340,000 acres.

It is well known that the Carey Act projects include large areas of private lands as well as segregated lands. No detailed information as to the areas of such private lands is available, but it seems likely from fragmentary data that the Carey Act projects as a whole have made water available for an area of 1,200,000 acres, of which possibly 600,000 acres were irrigated. These estimates are, of course, of doubtful accuracy. It seems fairly certain, however, that water has been made available for about 20 per cent of all the lands that have been segregated to the several States, and thousands of acres of additional lands are being brought under water every year. With all the undesirable features of its history, therefore, it must be concluded that much actual development has been accomplished. That more actual reclamation has not been accomplished and that severe and well-merited criticism of operations under the act has arisen is due chiefly to the following causes:

(*a*) The inactivity during the early stages of the act, due largely to a lack of appreciation of its possibilities on the part of the States and to a lack of interest on the part of capital, as a result of loss experienced by promoters of private irrigation projects.

(*b*) The segregation of land for long periods of time at the requests of promoters, either without funds for financing the project or without intention to invest their own funds in the undertakings, resulting in long delays without accomplishing results.

(*c*) The underestimation of costs of irrigation works, resulting in bankruptcy of the construction companies or long delays in getting additional funds for completing the developments.

(*d*) Careless and inefficient State supervision of Carey Act matter in general and in particular of the construction of the irrigation works, resulting in nonacceptance of the works and in legal proceedings.

(*e*) Prior to establishing the practice of Federal investigation of the water supply for the segregation before approving the segrega-

tion, the segregation of lands with inadequate and incompetent knowledge of the water supply for them resulting in insufficient water supply for properly irrigating the land.

(*f*) Improper methods of disposing of the lands under the segregations, permitting them to pass into the hands of local and nonresident speculators, who either have unloaded their holdings onto the actual farmers with heavy burdens, or who are renting their holdings to such farmers, or who are keeping their lands out of cultivation.

(*g*) Failure to appreciate the long time required to settle and develop the arid lands and reduce them to a profitably productive state and to adjust payments of water rights thereto.

(*h*) Failure to appreciate distances to produce markets and the time required to develop local markets and local stock consumption of crops.

(*i*) Dishonesty of State officials in the administration of Carey Act matters in collusion with dishonest construction work by the contractor on projects under development.

(*j*) Application for segregation of large areas of land when irrigation securities could be readily sold, accompanied by failure to finance the projects promptly, subsequent financing being made difficult or impossible by unfavorable market conditions for such securities.

The chief obstacle in the way of Carey Act projects at present is a general lack of confidence on account of past failures, resulting in inability to secure financial backing. When a market for Carey Act bonds is found, it is generally at a price to the developing company of 80 to 85, thus making the cost of money to the company at the rate of 7 per cent or more on the basis of a 6 per cent bond, and in addition requiring the redemption payment for the bond to be from 20 to 25 per cent greater than the original proceeds. The cost of colonization, which is a surprisingly large item in undertakings of this character; the cost of administration during a period of 20 years more or less, from the beginning of construction until the last deferred payments have been made by settlers; the cost for interest for the period of investigation and construction and until the interest on settlers' notes is sufficient to offset the bond interest; and a profit, even though small, for the developing company and the people who have taken the risks of the development increase the cost of the land to the settler, under even the best projects of this character, to an amount in the neighborhood of twice the actual construction cost.

It is evidently not possible under any scheme of financing and development to remove all of these items of cost from irrigated land. Under the Government projects of the Reclamation Service the items of interest and profit have been eliminated, but the costs of colonization and administration remain, in addition to the actual cost of construction. It has been suggested that the same items could be reduced under the Carey Act by the States lending their credit to the projects and supervising their development in such manner as to assure successful development under reasonable conditions.

Very respectfully,

HERMAN STABLER,
P. R. DUDLEY,
F. W. HANNA,
Carey Act Committee.

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